TEST REPORT

EN 62471:2008

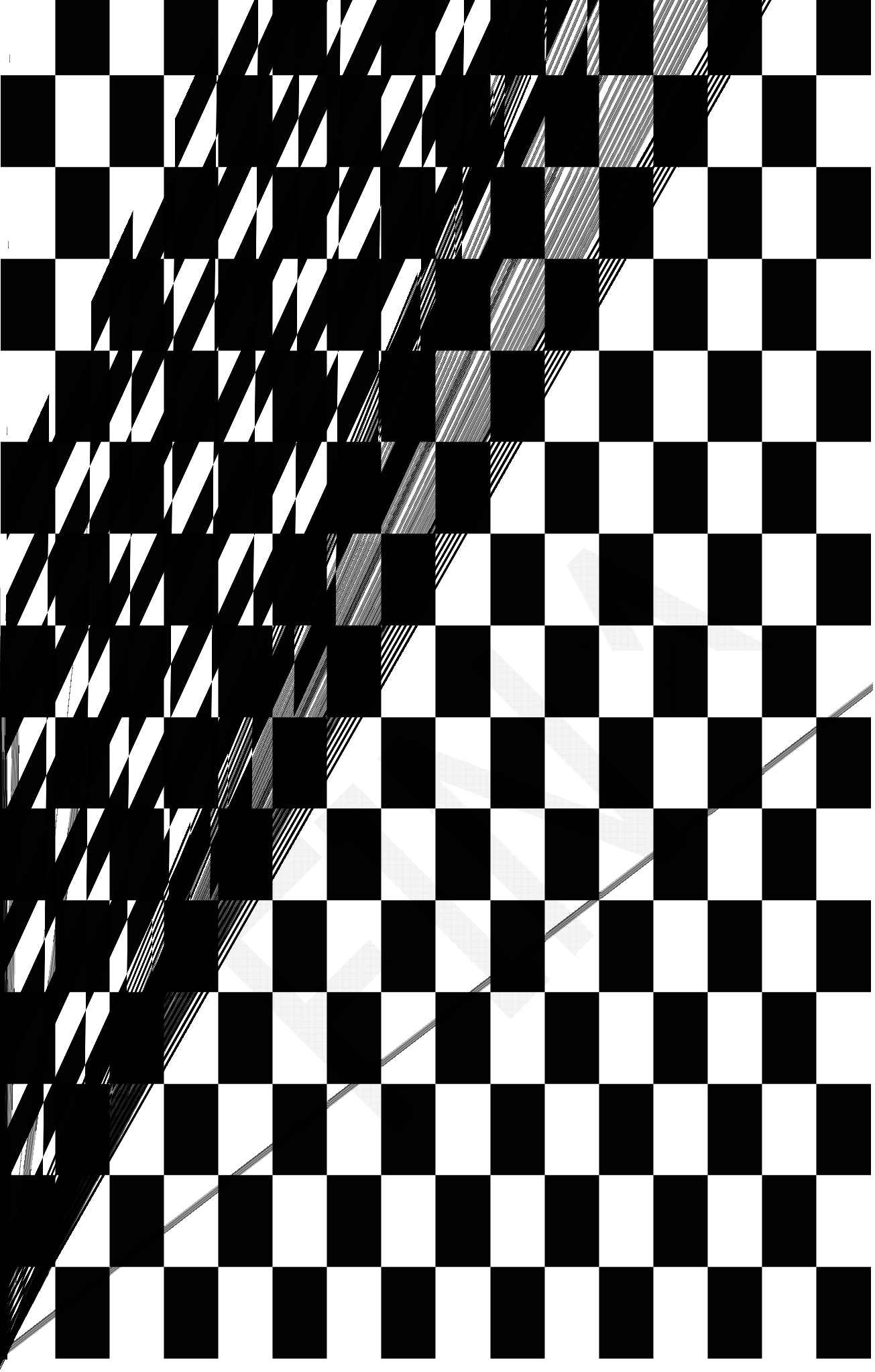
Photobiological safety of lamps and lamp systems

Report reference No .....:	RSZ160603550-03
Compiled by (+ signature) .....:	Park Zeng
Approved by (+ signature) .....:	Rick Xiao
Date of issue .....:	2016-06-14
Testing laboratory .....:	Bay Area Compliance Laboratories Corp. (Dongguan)
Address .....:	No.69 Pulong Village, Puxinhu Industry Zone, Tangxia, Dongguan, China.
Testing location .....:	Same as above
Applicant .....:	Guangzhou Hongli Opto-Electronic Co.,Ltd.
Address .....:	NO.1, Xianke Yi Road, Huadong Town, Huadu District, Guangzhou, China
Standard .....:	EN 62471:2008
Test sample(s) received.....:	2016-06-13
Test in period.....:	2016-06-13
Procedure deviation .....:	N.A.
Non-standard test method .....:	N.A.

Note: The test data was only valid for the test sample(s). This test report is prepared for the customer shown above and for the specific product described herein. It must not be duplicated or used in part without prior written consent from Bay Area Compliance Laboratories Corp. (Dongguan).

Type of test object .....:	LED
Trademark .....:	N.A
Model/type reference .....:	ATS-2835H9VW-2C-S1-08-PCT-HR3
Manufacturer..... .....:	Guangzhou Hongli Opto-Electronic Co.,Ltd. NO.1, Xianke Yi Road, Huadong Town, Huadu District, Guangzhou, China
Rating .....:	Input: 20Vdc 30mA

Copy of marking plate:
None



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Clause	Requirement

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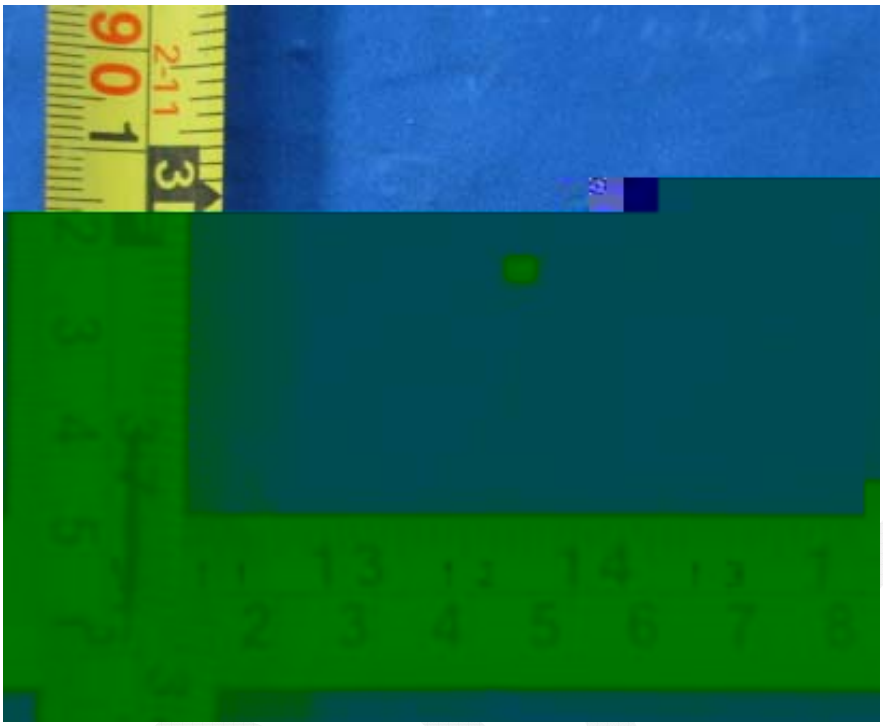
Clause	Requirement – Test	Result - Remark	Verdict

Table 6.1	Emission limits for risk groups of continuous wave lamps base on Directive(2006/25/EC)								P
Risk	Action spectrum	Units	Symbol	Exempt		Low risk		Mod risk	
				Limit	Result	Limit	Result	Limit	Result
Actinic UV	Suv( )	$W.m^{-2}$	E_S	0.001	$1.1X10^{-5}$	0.003	-	0.03	-
Near UV		$W.m^{-2}$	E_{UVA}	0.33	3.5×10^{-4}	33	-	100	-
Blue light	B( )	$W.m^{-2}.sr^{-1}$	L_B	100	3.2×10^{1}	10000	-	4000000	-
Blue light,small source	B( )	$W.m^{-2}$	E_B	0.01*	-	1.0	-	400	-
Retinal thermal	R( )	$W.m^{-2}.sr^{-1}$	L_R	28000/ =0.0220	7.3×10^{3}	28000/ =0.0220	-	71000/ =0.0220	-
Retinal thermal, Weak visual stimulus**	R( )	$W.m^{-2}.sr^{-1}$	L_{IR}	6000/ =0.0220	$1.0x10^{1}$	6000/ =0.0220	-	6000/ =0.0220	-
IR radiation Eye		$W.m^{-2}$	E_{IR}	100	0	570	-	3200	-

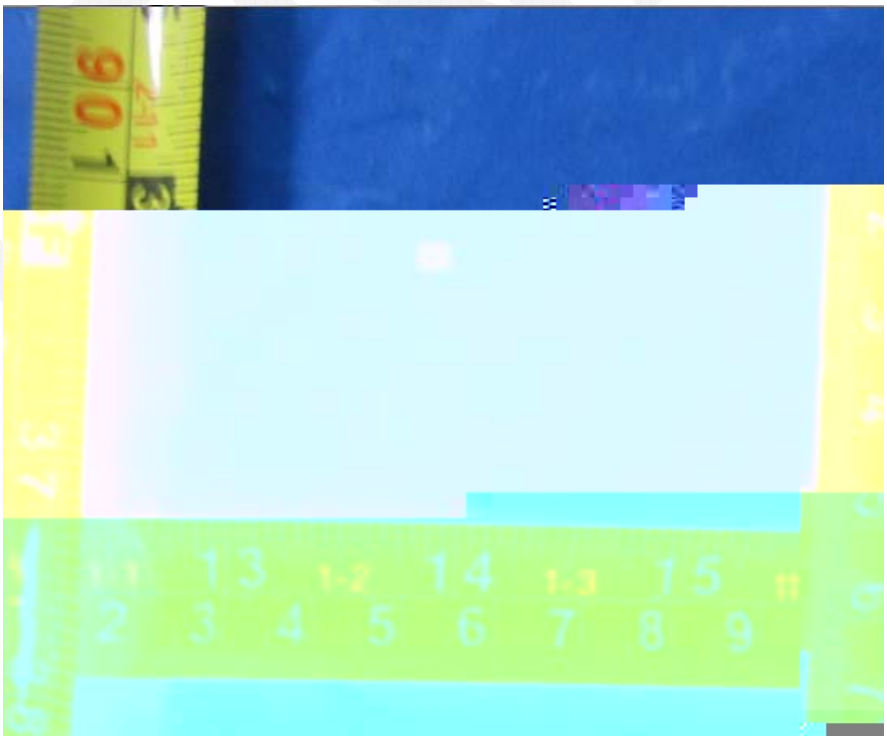
* Small source defined as one with < 0,011 radian. Averaging field of view at 10000 s is 0,1 radian.
** Involves evaluation of non-GLS source
NOTE The action functions: see Table 4.1 and Table 4.2
The applicance apertuer diameters: see 4.2.1
The limitations for the angular subtenses: see 4.2.2
The related measurement condition 5.2.3 and the range of acceptance angles: see Table 5.5

Appendix A - EUT Photos

The front view of EUT



The back view of EUT



Appendix B Test equipment list

Equipment Description	Model No	BACL#	Manufacturer	Last Cal	Cal Due
UV light leakage spectrum of biological safety systems	PMS-700	T-08-SF140	EVERFINE	2014-12-30	2016-12-29
Imaging luminance meter	CX-2K	T-08-SF140-1	EVERFINE	2014-12-30	2016-12-29
Radiation illuminance meter	RD-2000	T-08-SF140-2	EVERFINE	2014-12-30	2016-12-29
Radiation illuminance meter	RD-2000	T-08-SF140-3	EVERFINE	2014-12-30	2016-12-29
High Accuracy Array	HAAS-2000	T-08-SF140-4	EVERFINE	2014-12-30	2016-12-29
Hygrothermograph	PWS280	T-08-QA026	N/A	2016-3-21	2017-3-21
Standard power spectral UV radiation-specific	UVS-8003	T-08-EE048	EVERFINE	2016-3-21	2017-3-21
80mm sample integrating sphere	SMS-300	F-08-SF130	EVERFINE	2014-12-26	2016-12-25
Steel tape	HILOCK-19	T-08-SF100	TAJIMA	2013-4-18	2018-4-17

*****End of report*****